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The distribution of well-being and income within the household•

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Abstract

Several papers in the literature on intra-household allocation have suggested that various household 'outcomes', such as demands, saving, child health etc., depend on the distribution of income within the household. Implicit in these analyses is that a higher share of household income for one partner leads to a higher welfare for that person. In this paper we consider the issue of the intra-household distribution of welfare directly using a survey measure of self-perceived economic well-being. As a supplement to this we also present an analysis of responses to this question for singles; this allows us to 'benchmark' the responses for married individuals. Our data are drawn form the Danish component of the European Community Household Survey for the year 1994. We have three principal findings. First, we do *not* find any impact of the incomes of other non-related ('peer-group') persons on the financial satisfaction of singles. This is in contrast to other recent findings that suggest that agents consider relative incomes when considering their own satisfaction. Second, we find that husbands and wives often report very different levels of financial satisfaction. Finally, the most important correlate with relative satisfaction within the household is found to be relative income. This is a direct confirmation of the previously implicit findings.

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Keywords: Relative income, Well-being, Happiness, Intrahousehold allocation, unitary models.

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1. Introduction.

The past four decades have seen a strong increase in women's participation in the labour force with a consequent increase in women's share of income within married households (see, for example, Mulligan and Rubinstein (2002)). In a unitary model with income pooling this shift in the distribution of income within the household should not have any impact on most household decisions nor on the relative levels of welfare of the two members of the household.[1] Several papers in the literature on intra-household allocation have suggested that various 'outcomes' (such as expenditures on exclusive goods, child health etc.) do, in fact, depend on the distribution of income within the household (see, for example, Thomas (1990), Browning *et al* (1994) , Lundberg *et al* (1996) and Phipps and Burton (1998)). This is seen as an explicit rejection of the unitary model. Implicit in these analyses is that a higher share of household income for one partner leads to a higher welfare for that person. In this paper we consider this consequence directly using a survey measure of self-perceived economic well-being.

Our analysis is based on survey responses concerning 'financial satisfaction' and information on household economic factors. To give a 'benchmark' for the interpretation of responses by married individuals, we first conduct an analysis for singles. We find that for this group own income, age, being unemployed and being retired have a strong impact on reported satisfaction. We do not find any influence of age or education. More controversially, we find that the incomes of any 'peer-group' does *not* influence financial satisfaction. This is in contrast to the recent literature which suggest that there is an influence (see the surveys by Clark and Oswald (1996) and Frey and Stutzer (2002)). Turning to couples we find that there are differences between the responses of wives and their husbands. Although a number of factors are correlated with these within household differences, the most important statistically and substantively is the distribution of income within the household. This reproduces the rejection of income

[1] If the higher levels of labour force participation are caused by changes in the relative wage of women then there will be an impact on household decisions such as the allocation of time and the expenditure on work related goods. By definition, however, the two partners are assumed to have the same level of utility in a unitary model, so that these changes cannot induce changes in the distribution of welfare if the unitary model holds.

pooling and provides direct evidence that the distribution of income within the household does impact on the within household distribution of welfare.

In the next section we present some details of our data source, the Danish component of the ECHP for 1994. Section three presents the empirical analyses for singles. In section 4 we present the results for the levels of satisfaction expressed by married individuals. In section 5 we present an analysis of the differences between responses by married individuals. The final section concludes.

2. The data.

The data used are the Danish 1994-wave of the European Community Household Panel (ECHP). This includes a Household Register, a Household Questionnaire and an Individual Questionnaire (Eurostat, 1996) asking questions of all adult family members. We focus on single individuals and married couples with no one else in the household. This gives a sample of 622 single women and 516 single men, and 916 married (or cohabiting) couples. Details of the sample selection and sample statistics are given in the Data Appendix, where the tables A1 refers to singles and table A2 to couples.

Besides questions on income, labour market behaviour, housing situation, etc., the ECHP also includes questions on many different aspects of subjective well-being. In the following analyses we use responses to the question:

How satisfied are you with your present financial situation?

Responses are categorised in six groups ranging from “not satisfied at all” to “fully satisfied”. Obviously, this information relies on being comparable across individuals, which is not necessarily the case, as respondents may use the scale differently. Satisfaction questions have been repeatedly validated by psychologists and sociologists for many years (see Clark, 1997).

Our analysis largely follows the tradition in this literature that deals with other sources of satisfaction. Specifically, we present an ordered Probit for the responses with the ‘usual’ right hand side variables. These include household disposable income, age, education, sex, labour force status (‘employed’, unemployed’ and ‘out of the labour force’) and the income of a reference group. Details of the construction of the latter are given below. For couples we also include a measure of the within household distribution of income.

3. Empirical analysis for singles.

Although our main concern is with couples and intra-household issues, we begin with a analysis of the satisfaction responses of single respondents. This is to allow us to develop an interpretation of the responses to the question concerning satisfaction with the respondents' 'present financial situation'. Once we have this, we shall assume that the responses of married/cohabiting respondents can be interpreted in the same way, and use this as an identifying assumption to analyse intra-household effects.

From Table A1 we see that our sample of single women is older than for the males (an average age of 59 for women and 47 for men). Both our samples are bi-modal in age (with relatively few respondents in the middle age range) so we work with the age categories given in the Table A1 in our analysis below[2]. Similarly, we also have a much higher proportion of women than men who are 'out of the labour force' (which almost always means retired). In our analysis we explicitly check for the sensitivity of our results to including such a large proportion of retired agents. Men have higher levels of education, which presumably reflects the age distribution and the increasing education levels for younger cohorts. Finally, the average net income for men is 23% higher than for women.

The response to the satisfaction question given here includes only five categories as the first two - categories 1 ("not satisfied at all") and 2 ("not very satisfied") – are merged, because there are very few respondents who locate themselves in the first category. Table 1 presents the reported satisfaction levels for men and women. As can be seen, women tend to report somewhat higher levels of satisfaction but this may simply reflect the differences in the samples of single men and single women. To take account of this, we use an ordered Probit approach. We begin with a relatively general specification with age, sex, income, labour force status and education variables on the right hand side. These are included in a general way. For example, we include splines for the six age groups given in Table A1, crossing between gender and education dummies and a quadratic in log income. Neither sex nor education are significant anywhere. Thus the higher average values in the raw data for women can be wholly attributed to differences in other characteristics. We also find that the age effects are captured by a single spline

[2] We split the over-60's into the 60-67 and over-67 groups since Danes are eligible for a state pension at age 67.

variable for the over-50's. Specifically, we use a spline that is zero for anyone aged below 50 and linear in decades thereafter (so that it has values of 0, 1 and 2 for 50, 60 and 70 year olds, respectively). The results presented in the first column of Table 2 represent the final preferred, parsimonious specification. The likelihood ratio statistic for the 12 general to specific restrictions is 14.0, so the restrictions made in the specification search are not rejected.

For the preferred specification we find that satisfaction increases significantly with annual income. We find that older people are more likely to be satisfied, conditional on income and labour force status. Being unemployed lowers satisfaction, even though we condition on annual income. This is in agreement with other investigations, see Clark and Oswald (1994), Oswald (1997) and Winkelmann & Winkelmann (1998). Our result suggests that respondents have a shorter period than the current year in mind when they interpret the 'present' in the question. Thus someone who is unemployed for a short time may not experience much of a fall in annual income but there may be a significant fall in current (this month's) income. Finally, we find that being out of the labour force, conditional on age and income, lowers satisfaction. Since this is likely to be a highly persistent state we cannot interpret this in the same way as being unemployed, and, we do not have any convincing explanation for this finding. In the second column of Table 2 we repeat our analysis taking the subset of 516 agents who are all in the labour force. As can be seen, this restriction leaves the results almost unchanged for the effects of income and being unemployed.

One aspect of the research literature on happiness and satisfaction that has been much discussed is the impact of the aspiration levels and the status of others in the economy (see Clark and Oswald (1996) and Frey and Stutzer (2002) for discussion and references). In the current context we take 'aspiration' to mean the income of others who are similar to the respondent. Of course, this leaves open the precise definition of the peer group; we take sex, education, age and labour force status to be the determining factors. To define aspiration levels for income we formulate a net income equation for our respondents, using these variables. We then investigate whether deviations from the predicted level for individuals has an impact on satisfaction. We again adopt a general specification to start with but since our purpose here is prediction we do not have to refine our specification. We emphasize that we are running a net income equation and

not a wage or earnings equation. In particular, we condition on labour force status so that retired agents are taken to compare themselves to other retirees.

The results for the net income equation are presented in Table 3. The main features of this regression are:

- Men have incomes that are about 5% higher on average, conditional on all the other factors. This is a good deal lower than the unconditional difference of about 23% seen in table A1.
- Income is increasing below age 40, and even more sharply below age 25 (the spline coefficient is a slope parameter). Above age 40, income begins to slowly decline (conditional on not changing labour force status). This could be either an age effect or a cohort effect.
- The effect of education is very different for men and women. For example, there is a considerable premium for having high rather than medium education for men, but not for women. For men, the premium for having medium education rather than low education is quite small. Once again, it should be kept in mind that we are not estimating a wage equation and we have a substantial proportion of retirees in our sample, so that these effects cannot be interpreted in the conventional manner.
- Being unemployed or out of the labour force lowers income by about the same (large) amount, conditional on the other factors being the same.

We define the 'income aspiration' level of an individual to be the predicted income from these regressions for that person, conditional on their individual characteristics.

We include the constructed aspiration level in the satisfaction ordered Probit. We identify the effect of aspirations on satisfaction by the exclusion of all of the variables that enter the income variable but not the satisfaction equation. The excluded variables include gender and education and are jointly highly significant in the income equation. It is important to note this since we find that the aspiration level is wholly insignificant in the satisfaction ordered Probit – a t-value of -0.2. This is something of a surprise, given that the evidence in other contexts using cross-section data indicates significant peer effects. For example, Clark and Oswald (1996) find peer effects for job satisfaction, Neumark and Postlewaite (1998) find an effect of the labour supply of other family members on own labour supply, and McBride (2001) and Stutzer (2002) that relative income matters. In contrast, we do not find any evidence that *single* people use anything

other than their absolute level of income in determining their satisfaction with their 'present financial situation'. Thus we take the specification given in table 2 as our benchmark and proceed using it in the analysis of couples.

4. Empirical analysis for couples.

In this section we consider married (or cohabiting) couples with no children or other adults in the household. In Table 4 we present the numbers for reported satisfaction for married men and women. Comparing these with the values in Table 1 we see that married respondents report more satisfaction for their financial situation than singles (on average). For example, 38.7% of married men report being very satisfied as against 29.1% of single men. The mean reported score for married individuals is 0.4 higher for men and 0.3 for women. This finding is expected given that married couples can exploit economies of scale and also tend to have higher lifetime individual incomes. For the moment, we stay with the individual responses and compare them to those for singles. The basic approach is to repeat the analysis conducted for singles, without taking into account the characteristics of the partner. We then include some common household characteristics such as joint income. Finally we shall look at the differences between the responses of husband and wife.

In Table 5 we present the results from ordered Probits for married men and married women separately, using the specification from the analysis of singles. The labour force status variables are for the individual concerned. We first adopt a 'unitary' approach in which we have 'income pooling' so that only the level of household income matters. The results are presented in columns 1 and 3 of table 5. We see that the results for married men and for married women are broadly similar. Comparing with the results for singles (see Table 2) we have:

- the age effects for singles and married individuals are similar;
- the impact of own unemployment is a good deal lower for couples. This is consistent with own employment being less important for 'financial' status for married individuals than for singles;
- for couples there is no significant impact of being out of the labour force;
- the impact of household income on satisfaction is significantly stronger for couples than for singles.

The main conclusion from this is that in a unitary framework, household income is one of the most important determinants of satisfaction with the financial situation for both singles and married individuals.

Income pooling is the most important implication of the unitary hypothesis. However, as discussed in the introduction, the recent intra-household literature suggests strongly that it is not only the 'size of the pie' that matters but also the share that each person receives and this may be related to the share of income. To test for this in this context, we include the wife's share of household income in the analysis. This variable (or some variant of it) is widely in the non-unitary literature to test for failures of income pooling. Having said this, it has to be admitted that the use of the variable does not have any strong theoretical underpinning. For example it is not clear if it is relative potential wages (independent of current labour force status), relative earnings or relative non-labour income that should matter. This reflects the lack of any theoretical model that rigorously determines the determinants of within household inequality in a non-unitary framework.

The statistics for the wife's share of income for our sample are given in Table A.2. As can be seen the median is about 45% with about 25 per cent of wives in our sample earning an income that is less than one third (35%) of their husband and another 25 per cent earning at least as much as (50%) their husband. These values reflect the high labour force participation of women in Denmark. Columns 2 and 4 present the results when we include the share variable on the right hand side of the satisfaction equations. The coefficients on the other variables do not change very much. We find that the wife's share has a significantly negative impact on the husband's satisfaction and a positive impact on the wife's satisfaction. This is exactly in accord with the 'predictions' of non-unitary models.

To illustrate the scale of these effects, consider two households A and B. In household A the wife has no income of her own and household income is equal to the husband's income. In household B the wife earn half the income. The wife in B is predicted to have the same satisfaction as the wife in A if household income in B is 16% lower than in A, whereas the husband in B needs household income in B to be 53% higher to compensate him for his lower share.

5. Within households differences.

We now present more focussed results on the differences between the responses of husband and wife. Suppose that satisfaction for husband (*h*) and wife (*w*) are given by:

$$s_h^* = x_h'\beta_h + z'\gamma_h + u_h$$
$$s_w^* = x_w'\beta_w + z'\gamma_w + u_w \quad (3)$$

where s_h^* is the (latent continuous) satisfaction score for the husband, x_h is a vector of the husband specific variables (such as his age) and z is a vector of common household variables (for example, log household income) and β_h and γ_h are coefficients for the husband. If we take differences and re-arrange, we have:

$$s_h^* - s_w^* = (x_h - x_w)'\beta_h + x_w'(\beta_h - \beta_w) + z'(\gamma_h - \gamma_s) + e_h. \quad (4)$$

This is the basis of our empirical analysis of differences.

Turning to the relative responses of satisfaction, a cross-tab of the two sets of responses reveals (unsurprisingly) that in a majority of households the two partners respond in the same way. There are, however, some significant differences. To show this (and to construct a central variable in the following analysis) we construct an ordered variable that takes value -2 if the husband is much less satisfied than his wife (his response is at least two points below hers); value -1 if he is less satisfied (his response is one point below hers), zero if they report the same level of satisfaction and +1 and +2 respectively for the wife being less satisfied or much less satisfied than her husband. The proportions for values –2, -1, 0, 1 and 2 are 7%, 16.5%, 59%, 12.4% and 5.1% respectively. Thus we see a slight tendency for wives to report more satisfaction than their husbands (23.5% negatives as against 17.5% positives). Of course, these differences could just be noise due to misreporting. If they are simply noise then they will be uncorrelated with other household factors. The central focus of this paper is whether these differences are systematically correlated with household characteristics in general and ‘sharing’

parameters in particular. Alternatively it could be that women simply report higher levels of financial satisfaction (as they seem to in other contexts, see Clark (1997) on job satisfaction, and Alesina *et al* (2002) for general satisfaction). The analysis on singles, however, suggested that the differences between financial satisfaction reported by men and women could be explained by differences in characteristics other than gender.

We now present an analysis of the differences in reported values of husbands and wives' satisfaction. To do this, we take the ordered variable described in the previous paragraph as our dependent variable in an ordered Probit. We begin with a specification motivated by equation (4), and then 'test down' to a more parsimonious preferred specification. The results reported in Table 5 suggest that $\beta_h \simeq \beta_w$, so that it comes as no surprise that the individual (age and labour force status) levels are insignificant (a $\chi^2(3)$ statistic of 5.7). In the first column of Table 6 we present the estimates for the ordered Probit analogue of equation (4) without the wife's age and labour force status levels variables (but with an intercept included):

$$s_h^* - s_w^* = (x_h - x_w)'\beta + z'\gamma + e_h \tag{5}$$

The results are, as we would anticipate from Table 5: the difference in the age spline and the dummy for being out of the labour force and the level of household income are insignificant individually and jointly (the $\chi^2(3)$ statistic for exclusion is 2.3). The second column presents the results for the more parsimonious specification which drops these variables. As expected the difference in being unemployed and the wife's share both impact negatively and significantly on the difference in reported satisfaction. In the final column of Table 6 we present an augmented equation to show that the result for the wife's share is robust. This is the result of a specification search that began with a much broader set of variables and then 'tested down' to the specification given here.[3] We find that difference in age and education also impact on differential satisfaction, with older and better educated partners reporting higher satisfaction. These variables and the signs

[3] In this specification search the t-value for the wife's share was always at least 3.8 (in absolute value).

of their coefficients are consistent with the demand based analysis of Browning *et al* (1994).

5. Conclusions.

In this paper we investigate the determinants of respondents' self-reported satisfaction with their financial situation. We find that for singles the most important determinants are income, age and labour force status. Significantly, we do not find any impact of gender or 'aspiration' income. The latter is in contrast to the wider literature on measures of satisfaction with other aspects of life. It remains an open question as to whether our contrary finding is due to differences in the specification or to our focus on financial satisfaction.

Turning to couples, we find that the reported levels of (unconditional) satisfaction with their financial situation is somewhat higher for married individuals than for singles. This presumably reflects the fact that married individuals have higher lifetime income and gain from the publicness of some expenditures. We also find that husband and wife often report different levels of satisfaction. As regards the determinants of financial satisfaction, the effect of household income is stronger for married individuals than for couples and the effect of age is about the same. The effect of 'own unemployment' is smaller for married individuals, which presumably reflects the reduced impact of unemployment on household income. The impact of being out of the labour force status is much smaller and insignificant for married individuals. Our most important finding is that the wife's share of household income impacts positively on her satisfaction and negatively on her husband's. This is in accord with findings for other outcomes in the intra-household literature. In a detailed examination of the differences in responses, the intra-household distribution of income is seen to be a major and highly significant factor. Interestingly, we also find that factors such as differences in age and education are also significant, with older and better educated partners reporting higher levels of satisfaction. Finally, differences in employment status have a significant impact even though they seemed relatively unimportant in the levels specification.

This paper presents a first attempt at measuring directly the impact of the intra-household allocation of income on the distribution of material well-being within the household. Our results are consistent with earlier findings in the literature and reinforce

the widespread perception that who brings in income does matter for outcomes and for welfare.

References

Alesina, A., DeTella, R. and MacCulloch, R. (2002). *Inequality and Happiness: Are Europeans and Americans Different?* NBER Working Paper Series. Cambridge, US.

Browning, M., Bourguignon, F., Chiappori, P-A., Lechene, V. (1994). Income and Outcomes: A Structural Model of Intra-household Allocation. *Journal of Political Economy*. 102:6. Pp. 1067-1096.

Clark, A.E. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics* 4 (1997) pp. 341-372.

Clark, A.E. & A.J. Oswald (1994). Unhappiness and unemployment. *The Economic Journal*. 104 (May), pp. 648-659.

Clark, A.E. & A.J. Oswald (1996). Satisfaction and comparison income. *Journal of Public Economics* 61 (1996) pp.359-381.

EUROSTAT, 1996. The Household Panel Newsletter. Theme 3. Series B. Luxembourg.

Frey, B.S. & Stutzer, A. (2002). What can Economists learn from Happiness Research? *Journal of Economic Literature* 40:402-435.

Lundberg, S.J., Pollak, R.A. and T. Wales (1996), "Do husbands and wives pool their resources? Evidence from the United Kingdom child benefit", *Journal of Human Resources*, 32(3), 463-480.

McBride, M. (2001). Relative-income effects on subjective well-being in the cross-section. *Journal of Economic Behavior & Organization*, Vol.45. Pp. 251-278.

Mulligan, C. and Y. Rubinstein (2002). Specialization, inequality and the labor market for married women, mimeo, University of Chicago.

Neumark, D. & Postlewaite, A. (1998). Relative income concerns and the rise in married women's employment. *Journal of Public Economics* 70 (1998) pp. 157-183.

Oswald, A.J. (1997). Happiness and Economic Performance. *Economic Journal*. 107. (November). Pp. 1815-1831.

Phipps, S. & Burton, P.S. (1998), What's mine is yours? The influence of male and female incomes on patterns of household expenditure, Economica 65, pp. 599-613

Thomas, D. (1990), "Intra-Household Resource Allocation: An Inferential Approach", *Journal of Human Resources*, 25, 635--664.

Stutzer, A. (2002). *The Role of Income Aspirations in Individual Happiness*. Working Paper No. 124. Institute for Empirical Research in Economics. University of Zurich.

Winkelmann, L. & Winkelmann, R. (1998). Why Are the Unemployed so Unhappy? Evidence from Panel Data. *Economica*. 65:257, pp. 1-15.

Tables

Table 1
Reported levels of satisfaction (6=”very satisfied)

	Single men	*Single women*
Satisfaction = 1,2	12.6	9.7
Satisfaction = 3	14.5	12.2
Satisfaction = 4	20.2	18.2
Satisfaction = 5	23.6	26.1
Satisfaction = 6	29.1	33.9
Mean level	4.42	4.62

Table 2
Ordered Probits for satisfaction responses of singles.

	FULL SAMPLE (# = 916)	*IN LABOUR FORCE (# = 516)*
Spline for over-50’s	0.44	0.59
	(0.04)	(0.1)
Unemployed	-0.86	-0.92
	(0.12)	(0.12)
Out of labour force	-0.36	-
	(0.10)	
Log income	0.41	0.43
	(0.09)	(0.12)
Pseudo-R^2	0.08	0.07
Standard errors in brackets.		

Table 3
Income equation for singles.

VARIABLE	*COEFFICIENT (SE) (BOTH MULTIPLIED BY 100)*
Male dummy	5.42 (3.3)
Age spline, < 25	7.04 (1.6)
Age spline, 25-29	1.96 (1.2)
Age spline, 30-39	1.71 (0.6)
Age spline, 40-49	-0.2 (0.6)
Age spline, 50-59	0.01 (0.6)
Age spline, 60-67	-2.07 (0.7)
Age spline, > 67	-0.59 (0.2)
Female, high education	11.5 (3.8)
Male, high education	23.0 (4.0)
Female, medium education	12.3 (3.2)
Male, medium education	4.86 (3.5)
Unemployed	-33.2 (3.5)
Out of labour force	-33.5 (3.0)

Table 4
Reported levels of satisfaction for married/cohabitating individuals
(6 = "Very satisfied").

	MARRIED MEN (%).	*MARRIED WOMEN (%).*
Satisfaction = 1,2	5.3	4.7
Satisfaction = 3	8.93	7.9
Satisfaction = 4	19.6	20.2
Satisfaction = 5	27.5	23.0
Satisfaction = 6	38.7	44.1
Mean level	4.85	4.94

Table 5
Results for married/cohabitating individuals

	MARRIED MEN		*MARRIED WOMEN*	
Spline for over-50	0.44	0.44	0.52	0.52
	(.04)	(.04)	(0.05)	(0.05)
Unemployed	-0.33	-0.31	-0.40	-0.39
	(0.22)	(0.22)	(0.16)	(0.16)
Out of labour force	-0.01	-0.02	-0.07	-0.08
	(0.09)	(0.09)	(0.09)	(0.09)
Log household income	0.76	0.71	0.70	0.73
	(0.10)	(0.10)	(0.10)	(0.10)
Wife's share of income	-	-0.62	-	0.26
		(0.21)		(0.21)
Pseudo-R^2	0.05	0.06	0.05	0.06

Table 6
Results for differences in satisfaction for couples

	MODEL I	MODEL II	MODEL III
Δ (SPLINE FOR OVER-50)	0.14 (0.09)	-	-
Δ (Unemployed)	-0.70 (0.16)	-0.69 (0.15)	-0.74 (0.16)
Δ (Out of labour force)	0.01 (0.08)	-	-
Log household income	0.03 (0.08)	-	-
Wife's share of income	-0.81 (0.21)	-0.79 (0.20)	-0.83 (0.21)
Δ (Age)	-	-	0.25 (0.07)
Δ (High education)	-	-	0.11 (0.09)
Δ (Medium education)	-	-	0.16 (0.07)

Note: Δ (y) denotes the difference between the value of y for the husband and for the wife (so that Δ (Unemployed) takes on values –1, 0 and 1).

Data appendix

We start with 1211 single people (defined as having only one adult and no children present in the household). We drop 3 households that do not have a usable response to the satisfaction question. We then drop 65 respondents who either do not report net income or report an annual total of less than 25,000 Danish Crowns (about 4500 Euros). Finally we drop 5 respondents for whom we do not have education information. This leaves us with a sample of 1138 respondents. Summary statistics are given in Table A1.

For couples, we begin with 1054 households. We drop 106 observations that have unusable satisfaction responses by one or other partner, 39 households with very low income and 2 households with unusable education information. This leaves us with 907 households.

Table A1
Descriptive statistics for singles.

VARIABLE	*SINGLE MEN*	*SINGLE WOMEN*
Number	516	622
Age < 30	25.4	16.6
Age 30-39	20.0	6.6
Age 40-49	14.0	8.0
Age 50-59	11.4	11.6
Age 60-67	6.8	10.1
Age > 67	22.5	47.1
Medium education	0.42	0.29
High education	0.26	0.20
Unemployed	0.12	0.07
Out of labour force	0.36	0.65
Net annual income	103,507	84,200

Table A2
Descriptive statistics for couples

	HUSBAND	*WIFE*
Age	55.0	51.9
Medium education	0.42	0.33
High education	0.28	0.23
Unemployed	0.03	0.06
Out of labour force	0.28	0.23
Annual income (,000 Euros)	111.5	77.6
No annual income	1.5%	3.8%
Wife's share of income	First quartile, median, third quartile = 0.35, 0.45, 0.50	